

# Long Island Botanical Society

Vol. 16 No. 4

The Quarterly Newsletter

Fall 2006

## *Geum vernum*: New York State endangered plant in Kings Point Park, Town of North Hempstead: more evidence for climate change?

Andrew M. Greller, Virginia Dankel, and David C. Locke

### Introduction

In preparing a site list of noncultivated plants for a Long Island Botanical Society field trip to Kings Point Park (FIG. 1), one of us (A.M.G., on May 11, 2006) found two colonies of *Geum vernum* (spring avens). Mitchell and Tucker (1997) list *Geum vernum* (Raf.) Torrey and A. Gray as possibly exotic to New York State, and designate it with an asterisk in parenthesis (\*). Rarity Status is NYS: **E**; TNC Rank: **G5 S1**. Subsequent visits on May 13 and June 8 revealed two more locations (see FIG. 1). One of these locations, nearest to Steppingstone Park, had scattered plants of *Geum vernum* along some 50 m of trail. Recently, the status of *Geum vernum* was changed. It was “moved from the active list to the watch list” because it is now considered a “weedy species predicted to expand range” (Young and Weldy, 2006).

### The Site

Kings Point Park is a 175-acre tract of mainly wetland vegetation owned by the Village of Kings Point. Parcels of land were acquired, and the present park assembled, in the 1930s. It was designated a Class I Wetland on the New York State Freshwater Wetland Map, on February 20, 1987. Kings Point Park was the site of a large Works Progress Administration (WPA) construction project, wherein “hundreds of men were brought [in] to clear trees and install drainage pipes.” Deep ditches scour the landscape. A softball field was installed on clean fill of morainal origin at the southern end, in the 1940s, and in the north central section, baseball fields for Little League play were developed in the 1950s. The park has been administered by the Great Neck Park District through the Board of Park Commissioners since 1938, by an agreement with the Village of



FIG. 1. Map (aerial photo from Google Earth) of Kings Point Park. Stars show locations where at least one plant of *Geum vernum* was found.

Kings Point (Larry Ninesling and Charles Angelo, undated manuscript, Great Neck Parks District Office). Most of the natural vegetation of Kings Point Park is swamp forest, with some upland oak forests on the best-drained sites. Elevation in the swamps varies from 7 ft above sea level to about 15 ft above sea level. Substrate of the swamps is muck. The upland forest types are located along Redbrook Road and Kings Point Road (FIG. 1), on elevations ranging from 20 ft above sea level to 47 ft above sea level. Soils of the uplands are morainal in origin, but moist. The park still contains natural springs.

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## Long Island Botanical Society

Founded: 1986  
Incorporated: 1989

The Long Island Botanical Society is dedicated to the promotion of field botany and a greater understanding of the plants that grow wild on Long Island, New York.

Visit the Society's Web site  
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## Society News

LIBS President Eric Lamont is recovering from a heart attack that occurred on September 16, five days before his 53rd birthday. He was training for a marathon when it happened.

◆

Although New York Natural Heritage Botanist and LIBS member Steve Young alerted us to the fact that the (nonnative) lilac (*Syringa vulgaris*) was about to become New York's "State Bush," no action was taken, and the bill was passed into law on August 16.

◆

LIBS member Wei Fang is senior author of a recent article in the American Journal of Botany 93(8): 1125–1133, titled "Sources of Variation in Growth, Form, and Survival in Dwarf and Normal-Stature Pitch Pines (*Pinus rigida*, Pinaceae) in Long-Term Transplant Experiments." The article concludes that many of the differences between Long Island's dwarf and normal-stature pitch pines may be due more to environmental factors than to genetic differences, and that preservation of the dwarf pine habitat is essential for preserving dwarf pine communities.

◆

John Potente reported that the Suffolk County Environmental Review Board (CEQ; Council on Environmental Quality) is set to review the Final Environmental Impact Statement (FEIS) on the Long Range Management Plan for mosquitoes on Suffolk County's tidal and freshwater wetlands. Central to this proposal is the filling in of some ditches, using soil that will come from pond excavations within the high marsh areas. The creation of artificial ponds in the high marsh areas has become a source of controversy in marsh restoration.

◆

The New York State Department of Transportation is proposing to widen Route 347/454 in the area of the Hauppauge Springs. The road expansion will encroach upon about an acre of the approximately 40 acres of Hauppauge Springs south of Veterans Memorial Highway. An Environmental Impact Statement is being prepared by NYSDOT.

◆

LIBS is considering a proposal to partner in republishing "Native and Near Native: An Introduction to Long Island Plants" by Albert Hostek. This slim paperback was first published by Sweetbriar Nature Center in 1976. It is out of print and needs revision, but is an excellent resource for the general public. LIBS members' suggestions would be incorporated into the revised book, which would be published through a print-on-demand service. Funding is being sought.

◆

Planting Fields Arboretum is disposing of its metal herbarium cases. LIBS members are concerned about the future of this important collection.

◆

Laura Schwanof invites LIBS to participate in an ecological inventory of West Meadow Beach, a fine salt shrub habitat, which has recently become a Brookhaven Town Preserve.

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### Description of the *Geum vernum* locations

All but one of the sites for *Geum vernum* are in muck soils at edges of paths that are covered with wood chips. Those *Geum vernum* sites show signs of recent disturbance or lack of competition. Compaction of soil may be a factor because the largest colony occurs on a site that must once have been a picnic ground. This is evidenced by an old slab of concrete within which is the stump of a sawed off barbecue grill pole. A pH reading taken from soil on the site is 5.9 (slightly acidic). This is higher than pH levels in bogs and kettle ponds in western Long Island, which can vary from 3.5 to 4.5 (unpublished data, A.M.G.), and higher than moist upland sites in nearby Mill Neck (Greller, Locke, Kilanowski, and Lotowycz, 1990). It is possible that decaying concrete is contributing to the relatively high pH reading. Near the Steamboat Lane parking lot there is a small colony of *Geum vernum* adjacent to a pile of plant debris that contained sand and pebbles. The soil is sandier here, although mosses provide a dense ground-cover. The two types of site have in common (1) an opening (since the paths are devoid of plants), (2) some recent disturbance such as wood chips or dumping of plant debris, (3) adjacent plants are often exotic weeds, for example as *Alliaria* (garlic mustard), *Duchesnea* (Indian strawberry), *Veronica hederaefolia* (ivy-leaved speedwell), *Rosa multiflora* (multi-flowered rose), and *Microstegium* (Japanese stilt-grass).

### Discussion

Clemants and Gracie (2006) present a northeastern range map that shows *Geum vernum* occurring in only three areas of New York State. One is the New York City area, another is at the southeastern end of Lake Ontario, and the last is at the eastern end of Lake Erie. The taxon ranges all around Lake Erie. Otherwise its range is to the south and west of New York, in southeastern and southwestern Pennsylvania and then to the southwest. For New York City, *Geum vernum* has been found in Van Cortlandt Park, Bronx County, New York (Gerry Moore, personal communication). Young and Weldy (2006) have recently revised the rare plant status listing for *Geum vernum*. They moved *Geum vernum* from

the “active list to the watch list” because they now believe it is a “weedy species predicted to expand range.”

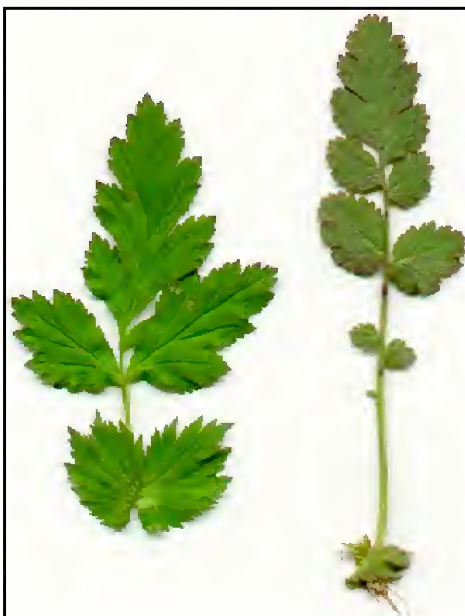
Open, disturbed habitats, where competition from native species is lacking, provide niches for exotic species. Occurrences of exotic species such as *Alliaria petiolata* and *Cardamine impatiens* (bushy rock-cress) even in mature forest, are becoming commonplace. Southern (mountain) plants have found niches in our Long Island habitats: for example, *Magnolia tripetala* (umbrella magnolia) in mixed mesophytic (mixed hardwood) forest; *Magnolia acuminata* (cucumber tree) in oak-red maple forest (Greller, Lindberg, and Lindberg 2000); *Magnolia macrophylla* (large-leaved magnolia), as a local escape in a mixed oak forest in Oyster Bay, Long Island (personal observation, A.M.G.); and *Aesculus octandra* (yellow buckeye) in two Long Island locations (personal observation, A.M.G.), both at edges of woods in disturbed conditions. One location for *Aesculus* is at the eastern edge of Kings Point Park, the other is on the wooded shoulder of a paved road in Greenvale, Town of North Hempstead.

The many new exotics and invasives in the New York City area may be a consequence of the record increases in warmth over the past decade. For example, in the United States, “the five most recent five-year periods (pentads: 2000–2004, 1999–2003, 1998–2002, 1997–2001, 1996–2000) were the warmest pentads in the last 110 years of national records, illustrating the anomalous warmth of the past 10 years” (Levinson 2005, p. 47). Southern mountains have not

been appreciably warmer than New York City area stations. The major difference has been in the length of the frost-free season related to higher winter warmth, i.e., greater equability (cf. Greller and Clemants, 2001).

### Conclusions

Our observations of *Geum vernum* in Kings Point Park suggest that it is fairly widespread along trails and in other disturbed sites, and occurs with other exotic plants and many native ones. We believe this species is invading our area from the south, extending its natural range in eastern North America. Thus, we concur with Young and Weldy (2006) that the plant is no longer to be considered of active concern in New York State conservation and that it should be watched for evidence of an explosive growth in range.



Dan Tenaglia—www.missouriplants.com  
Used with permission

*Geum vernum*. Upper and lower cauline leaves.

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A rare sedge, *Cyperus squarrosus* (bearded flatsedge), was among the species observed in the Clayton Pine-tum by a group led by Andy Greller. On a trip to Pelham Bay Park, led by Dave Kunstler, young persimmons (*Diospyros virginiana*), square-stemmed monkey flower (*Mimulus ringens*), gamma grass (*Tripsacum dactyloides*), and a rare umbel, deadly angelica, (*Angelica venenosa*) were noted.

Eric Lamont has seen *Froelichia gracilis* (slender snakecotton, Amaranth family) by the thousands along sandy road edges on both the north and

## PLANT SIGHTINGS

south forks this year. Skip Blanchard has found it abundant at Jamaica Bay Wildlife Refuge. This plant is on the noxious weed list of 46 states, but apparently has only recently arrived on Long Island.

Eric noted that a creeping bentgrass he had collected in the Hempstead Plains has been identified as a commercial turfgrass, *Agrostis stolonifera* var. *palustris*.

Skip recently identified some sedge specimens collected years ago from JFK and Massapequa Preserve as a rare species, *Cyperus flavescens* (yellow flatsedge).

Barbara Conolly reported on a fertile American chestnut tree (*Castanea dentata*), approximately 150 years old, at an undisclosed Oyster Bay location.

Louise Harrison noted a subcanopy of a forest in Laurel Hollow which is getting filled with magnolias—tentatively identified as *Magnolia ripetala* (the umbrella magnolia).

## Ecological Communities of Long Island, New York, Part 2

Gregory J. Edinger

Program Ecologist, New York Natural Heritage Program

Editors Note: *Part 1 of this article, which covered the background and history of ecological community classification on Long Island, was published in July 2006 [LIBS Quarterly Newsletter, Vol. 16(3)].*

### Mapping Long Island Natural Communities

New York Natural Heritage conducted several biodiversity inventories on Long Island that have resulted in dozens of new community occurrences being entered into our database and provided significant updates to our classification. During the 1990s, NY Natural Heritage inventoried and produced full community maps for lands managed by New York State Department of Environmental Conservation (DEC). NY Natural Heritage produced biodiversity reports for the

following DEC lands on Long Island: Barcelona Neck Natural Resource Management Area (NRMA) (1998), David A. Sarnoff Pine Barrens Preserve (1997), Edgewood Oak Brush Plains Preserve (1993), Kings Park Management Area (1996), Old Westbury State Land (1998), Quogue Wildlife Refuge (1997), and Rocky Point NRMA (1995).

The state lands assessment continued with similar inventories and seamless community maps being produced for all of the state parks on Long Island. Between 2000 and 2002, the following state parks managed by the New York State Office of Parks Recreation

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and Historic Preservation (OPRHP) were surveyed by D.J. Evans, Paul G. Novak, Kathryn J. Schneider, and Troy W. Weldy: Belmont Lake, Bethpage, Brookhaven, Caleb Smith, Caumsett, Connetquot, Heckscher, Montauk Point, Orient Beach, Roberto Clemente, Sunken Meadow, and Wildwood. Also between 2000 and 2002, Adele M. Olivero, D.J. Evans, Kathryn J. Schneider, and Paul G. Novak surveyed Captree, Hempstead Lake, Hither Hills, Jones Beach, Montauk Downs, Nissequogue River, and Robert Moses. In 2004, Aissa L. Feldmann, Paul G. Novak, and Troy W. Weldy surveyed Cold Spring Harbor and Shadmoor. The reports from these surveys are available through the NY Natural Heritage Program.

During the late 1990s, NY Natural Heritage was range of variation of the same class and that maintains functions at characteristic levels for that class under unaltered or least altered conditions.” The most crucial criterion for reference wetlands is that they include representatives of natural or quasinalural wetlands that either occur currently in the region or occurred there at one time. This array of wetlands needs to be established and be protected so they can represent “types” similar to type specimens in herbaria, type localities for geologic formations, and type series for soils. Following the recommendations of the draft New York Statewide Wetland Conservation Plan, this project was conceived as a step toward developing a statewide network of reference wetlands. Reference wetland sites were sought on Long Island for 12 ecological communities (tidal and nontidal) described by Carol Reschke in *Ecological Communities of New York State* in 1990. These communities were chosen because they are currently the focus of a number of wetland mitigation and creation initiatives and because there was not a well-developed database of ecological information on these communities for Long Island.

With the advent of GIS, partner organizations joined the Long Island community mapping effort with detailed digital maps being produced for Montauk Peninsula by John E. Thompson for the Long Island chapter of The Nature Conservancy in 1997, for the Central Pine Barrens by Suffolk County Planning Department around 1995, and, in 2002, for Fire Island National Seashore by Scott D. Klopfer *et al.* for the College of Natural Resources, Virginia Tech in partnership with NY Natural Heritage. More information and final products can be found online. NY Natural Heritage is in the process of producing similar vegetation maps for Gateway National Recreation Area and Sagamore Hill National Historic Site for the National Park Service (NPS). The status of these maps and all NPS vegetation mapping projects can be found online at USGS-NPS Vegetation Mapping Program, New York State. The Web address is [http://](http://biology.usgs.gov/npsveg/states/ny.html)

[biology.usgs.gov/npsveg/states/ny.html](http://biology.usgs.gov/npsveg/states/ny.html)

### Community Classification Today and Tomorrow

Since publishing the first state community classification in 1990, NY Natural Heritage and its partners have gathered information on over 1700 natural community occurrences across the state for 174 different natural community types. Long Island has 247 of these occurrences representing 47 types. By 2000, it became apparent that revision to the Reschke (1990) classification was needed. A draft revision of *Ecological Communities of New York State* (Edinger *et al.* 2002) was produced in January 2002 and made available for public review and general reference. A final version of the second edition, however, is currently incomplete; researchers are asked to use and cite the 2002 version until we publish a final version. In the meantime, I am excited to announce that the NY Natural Heritage has developed a series of natural community guides that are available online at <http://acris.nynhp.org/communities.php>

The guides represent the future of the NY Natural Heritage community classification. They present up-to-date information on over 50 natural communities in the state, including species lists, distribution maps, photographs, tips on identification, and management considerations. NY Natural Heritage is actively pursuing funding to produce guides for all of the Long Island natural communities over the next several years, and we plan to keep our partners posted on our progress. No matter what technological means are used to present the information in the future, the descriptions and the classification will be based on the strong foundations of earlier ecological surveys and the network of dedicated ecologists, botanists, and zoologists.

Last, this classification system has proven to be a very valuable tool to a wide array of conservation practitioners and land managers in New York, including Long Island. By using this classification to identify locations of high-quality natural communities across the state we have raised awareness of their biodiversity significance. In addition, many of the occurrences identified by the NY Natural Heritage Program and our partners have resulted in their protection, ensuring that a good portion of New York’s natural heritage will persist for future generations to enjoy, study, and appreciate.

*The author thanks Jennifer Garrett, NY Natural Heritage assistant ecologist, and Nick Conrad, information manager, for producing the table of occurrences (pp. 38–45).*

**Table. Significant occurrences of natural communities on Long Island documented by the NY Natural Heritage Program and its partners as of September 1, 2006.**

Location	Managed Area Name*	County	Town	Quality Rank†	Size (acres)†	Last Survey
<b>Brackish interdunal swales</b>	<b>State rarity: S1S2    Global rarity: G3G4</b>					
Jones Beach Island East	Gilgo State Park, Cedar Beach Town Park	Suffolk	Babylon	B	9	8/22/2001
Jones Beach Island West	Jones Beach State Park	Nassau	Hempstead	B	18	8/22/2001
Walking Dunes	Hither Hills State Park	Suffolk	E. Hampton	B	18	9/23/1999
<b>Brackish intertidal shore</b>	<b>State rarity: S1S2    Global rarity: G3G4</b>					
Hands Creek		Suffolk	E. Hampton	A	2	1991
<b>Brackish meadow</b>	<b>State rarity: S1S2    Global rarity: G2G3</b>					
Walking Dunes	Hither Hills State Park	Suffolk	E. Hampton	A	59.8	9/23/1999
Napeague Meadows	Napeague State Park	Suffolk	E. Hampton	B	34	9/7/1997
<b>Brackish tidal marsh</b>	<b>State rarity: S3S4    Global rarity: G4</b>					
Carmans River Wetlands	Wertheim National Wildlife Refuge	Suffolk	Brookhaven	BC	215	8/26/1998
Nissequogue River		Suffolk	Smithtown	C	48	7/9/1998
<b>Coastal oak-beech forest</b>	<b>State rarity: S3    Global rarity: G4</b>					
Mashomack	TNC Mashomack Preserve	Suffolk	Shelter Island	A	200	1997
Friars Head Forest		Suffolk	Riverhead	B	241.9	6/14/2001
Wildwood Forest	Wildwood State Park	Suffolk	Riverhead	B	100.3	10/10/2001
Big Woods		Suffolk	Southampton	B	39	7/27/1995
Camp Baiting Hollow	Baiting Hollow State Tidal Wetlands	Suffolk	Riverhead	BC	30	8/22/1995
<b>Coastal oak-heath forest</b>	<b>State rarity: S3    Global rarity: G4</b>					
Long Pond Greenbelt	Long Pond Greenbelt Preserve (TNC), Poxabogue County Park, Mashashimuet Town Park	Suffolk	Southampton, E. Hampton	A	2700	9/9/1997
Hither Woods	Hither Hills State Park, Hither Woods State Park	Suffolk	E. Hampton	A	1235.5	10/7/1999
Barcelona Neck	Barcelona Neck Conservation Area, Sag Harbor State Park, Northwest Harbor County Park, North Haven State Tidal Wetlands	Suffolk	E. Hampton	AB	214.2	9/8/1997
Wildwood Forest	Wildwood State Park	Suffolk	Riverhead	B	291.1	10/10/2001
Bethpage	Bethpage State Park	Nassau	Oyster Bay	BC	140.1	8/1/2001
Caleb Smith Preserve	Caleb Smith State Park Preserve	Suffolk	Smithtown	BC	99.1	1/25/2002
<b>Coastal oak-hickory forest</b>	<b>State rarity: S3    Global rarity: G4</b>					
Mashomack	TNC Mashomack Preserve	Suffolk	Shelter Island	A	435	1997
Hither Woods	Hither Hills State Park	Suffolk	E. Hampton	A	152.6	10/7/1999
Heckscher State Park	Heckscher State Park	Suffolk	Islip	B	373.4	8/1/2001
Lloyd Neck	Caumsett State Park	Suffolk	Huntington	B	133.4	9/11/2001
Wildwood Forest	Wildwood State Park	Suffolk	Riverhead	B	125	10/10/2001
Barcelona Neck	Barcelona Neck Conservation Area, Sag Harbor State Park, Northwest Harbor County Park	Suffolk	E. Hampton	B	43.7	9/11/2003
Caleb Smith Preserve	Caleb Smith State Park Preserve	Suffolk	Smithtown	BC	99.1	1/25/2002
<b>Coastal oak-holly forest</b>	<b>State rarity: S1    Global rarity: G2</b>					
Montauk Point	Montauk Point State Park, Camp Hero State Park	Suffolk	E. Hampton	AB	325.4	7/23/1997
<b>Coastal oak-laurel forest</b>	<b>State rarity: S3    Global rarity: G3G4</b>					
Hither Woods	Hither Hills State Park, Hither Woods State Park	Suffolk	E. Hampton	A	89.4	7/24/1997
Cold Spring Harbor	Cold Spring Harbor State Park	Suffolk	Huntington	BC	15.5	9/18/2003

\*Managed area names are provided when known, based on information available to NY Natural Heritage at the time of publication. Occurrences may occur entirely or partly on the managed areas listed. Proper permission from appropriate land managers and land owners is required to obtain access.

†The Quality Rank and Size of occurrences are based on data collected on the Last Survey date and may not reflect current conditions.

Location	Managed Area Name	County	Town	Quality Rank	Size (acres)	Last Survey
<b>Coastal plain Atlantic white cedar swamp</b>	<b>State rarity: S1      Global rarity: G3G4</b>					
Cranberry Bog	Cranberry Bog County Nature Preserve	Suffolk	Southampton	B	70	9/21/1991
North Sea Cedar Swamp		Suffolk	Southampton	BC	25	8/2/1989
Owl Pond	Birch Creek Owl Pond County Park	Suffolk	Southampton	C	20	7/18/1991
Quogue Wetland	Quogue Wildlife Refuge	Suffolk	Southampton	D	2	10/19/1995
<b>Coastal plain pond</b>	<b>State rarity: S2      Global rarity: G3G4</b>					
Kents Pond	Robert Cushman Murphy County Park	Suffolk	Riverhead	AB	3	4/27/1989
Scoys Pond	Grace Estate Town Preserve	Suffolk	E. Hampton	B	20	8/29/1991
Weeks Pond	Southaven County Park	Suffolk	Brookhaven	B	4	7/16/1985
Montauk Point	Montauk Point State Park	Suffolk	E. Hampton	C	1.4	10/5/1999
<b>Coastal plain pond shore</b>	<b>State rarity: S2      Global rarity: G3G4</b>					
Crooked Pond	Long Pond Greenbelt Preserve (TNC)	Suffolk	Southampton	A	14	9/11/1998
Peasys Pond	Robert Cushman Murphy County Park	Suffolk	Riverhead, Brookhaven	A	9	9/4/1998
House Pond	Sears Bellows County Park	Suffolk	Southampton	A	5	9/3/1998
Division Pond	Sears Bellows County Park	Suffolk	Southampton	A	3	10/2/1997
Long Pond Sag Harbor		Suffolk	Southampton	AB	47	9/2/1998
Little Long Pond Sag Harbor		Suffolk	Southampton	AB	20	8/6/1997
Fox Pond	Robert Cushman Murphy County Park	Suffolk	Riverhead	AB	8	9/4/1998
Sandy Pond West	Otis Pike Preserve (NYS), Robert Cushman Murphy County Park	Suffolk	Riverhead	AB	7	8/22/1985
Grass Pond	Sears Bellows County Park	Suffolk	Southampton	AB	4	8/27/1997
Grass Pond North	Sears Bellows County Park	Suffolk	Southampton	AB	3	8/27/1997
Woodchoppers Pond	Robert Cushman Murphy County Park	Suffolk	Brookhaven, Riverhead	AB	2	8/22/1985
Duck Pond	Robert Cushman Murphy County Park	Suffolk	Riverhead	AB	2	9/21/1994
Beyond House Pond	Sears Bellows County Park	Suffolk	Southampton	AB	2	10/2/1997
Linus Pond	Otis Pike Preserve (NYS)	Suffolk	Riverhead	B	25	9/20/1985
Grassy Pond	Otis Pike Preserve (NYS), Robert Cushman Murphy County Park	Suffolk	Riverhead	B	15	7/9/1985
Sandy Pond East	Robert Cushman Murphy County Park	Suffolk	Riverhead	B	14	2/7/1991
Block Pond	Robert Cushman Murphy County Park	Suffolk	Riverhead	B	10	9/20/1985
Lily Pond Sag Harbor		Suffolk	Southampton	B	8	9/17/1985
Little Poxabogue Pond	Poxabogue County Park	Suffolk	Southampton	B	8	9/17/1985
Third Pond Calverton	Otis Pike Preserve (NYS)	Suffolk	Riverhead	B	7	8/27/1992
North Pond Lake Panamoka		Suffolk	Brookhaven	B	6	9/16/1985
Dead Car Pond	Robert Cushman Murphy County Park	Suffolk	Brookhaven, Riverhead	B	6	9/20/1991
Deer Drink		Suffolk	Southampton	B	6	9/7/1985
Tarkill Pond	Brookhaven State Park	Suffolk	Brookhaven	B	3.2	8/8/2002
Rocky Point Pine Barrens	Rocky Point Natural Resources Management Area (NYS)	Suffolk	Brookhaven	B	3	9/21/1994
Chatfields Hole	Two Holes of Water Town Park	Suffolk	E. Hampton	B	3	8/1/1985
Little Round Pond		Suffolk	Southampton	B	3	8/6/1997
Sears Pond	Sears Bellows County Park	Suffolk	Southampton	B	3	10/2/1997
Round Pond Peconic	Robert Cushman Murphy County Park	Suffolk	Brookhaven	B	2	8/6/1985
Twin Pond East	Otis Pike Preserve (NYS)	Suffolk	Riverhead	B	1	8/19/1985
Twin Pond West	Otis Pike Preserve (NYS)	Suffolk	Riverhead	B	1	8/19/1985
Between Grass And House Ponds	Sears Bellows County Park	Suffolk	Southampton	B	1	8/27/1997
Cranberry Bog, Peg Lane Pond	David A. Sarnoff Pine Barrens Preserve (NYS)	Suffolk	Southampton	B	1	10/18/1995
Black Pond Bridgehampton		Suffolk	Southampton	B		8/6/1997

Location	Managed Area Name	County	Town	Quality Rank	Size (acres)	Last Survey
<b>Coastal plain pond shore</b>	<b>State rarity: S2      Global rarity: G3G4</b>					
Egans Pond		Suffolk	Southampton	B		8/20/1985
Lake Panamoka	Brookhaven State Park	Suffolk	Brookhaven	BC	11.5	8/8/2002
Off Fox Pond	Robert Cushman Murphy County Park	Suffolk	Riverhead	BC	5	2/7/1991
Round Pond Tarkill	Otis Pike Preserve (NYS)	Suffolk	Brookhaven	BC	3	8/22/2001
Overton Road Barrens		Suffolk	Brookhaven	BC	2	4/27/1989
Whalers Drive Pond		Suffolk	Southampton	BC	2	9/17/1985
Pond North Of Dead Car Pond	Robert Cushman Murphy County Park	Suffolk	Brookhaven	BC	1	9/16/1985
Fore And Aft Pond	Mashashimuet Town Park	Suffolk	Southampton	BC	1	9/13/1985
Currans Pond South	Rocky Point Natural Resources Management Area (NYS)	Suffolk	Brookhaven	BC	0.1	9/6/1985
Deep Pond Wading River		Suffolk	Riverhead	C	30	8/27/1985
Artist Lake		Suffolk	Brookhaven	C	25	9/6/1985
Hempstead Lake	Hempstead Lake State Park	Nassau	Hempstead	C	24.9	8/24/2001
Bellows Pond	Sears Bellows County Park	Suffolk	Southampton	C	11	8/27/1997
Zeeks Pond	Brookhaven National Laboratory	Suffolk	Brookhaven	C	10	9/7/1985
Jones Pond	Otis Pike Preserve (NYS), Robert Cushman Murphy County Park	Suffolk	Riverhead	C	10	7/25/1984
Randall Road Pond North	Rocky Point Natural Resources Management Area (NYS)	Suffolk	Brookhaven	C	7	9/21/1994
Corey Pond		Suffolk	Brookhaven, Riverhead	C	4	9/16/1985
Randall Road Pond South		Suffolk	Brookhaven	C	3	9/16/1985
Kroemer Avenue Pond		Suffolk	Riverhead	C	3	8/9/1988
Sandpit Ponds	Otis Pike Preserve (NYS)	Suffolk	Riverhead	C	3	4/8/1992
Horn Pond	Robert Cushman Murphy County Park	Suffolk	Brookhaven	C	2	9/16/1985
Slate Pond		Suffolk	Southampton	C	2	8/6/1997
Bog Ponds Riverhead	David A. Sarnoff Pine Barrens Preserve (NYS)	Suffolk	Southampton	C	1	8/15/1995
Crystal Pond	David A. Sarnoff Pine Barrens Preserve (NYS)	Suffolk	Southampton	C	0.2	10/18/1995
Round Pond Sag Harbor		Suffolk	Southampton	E	7	8/6/1997
Currans Pond North	Rocky Point Natural Resources Management Area (NYS)	Suffolk	Brookhaven	E	1	6/10/1986
<b>Coastal plain poor fen</b>	<b>State rarity: S1      Global rarity: G3?</b>					
Bow Drive Marsh		Suffolk	Smithtown	AB	45	7/11/1989
Hither Woods	Hither Hills State Park	Suffolk	E. Hampton	AB	15	10/6/1999
Jones Pond	Robert Cushman Murphy County Park, Otis Pike Preserve (NYS)	Suffolk	Riverhead	AB	10	6/16/1998
Cranberry Bog	Cranberry Bog County Nature Preserve	Suffolk	Southampton	B	12.6	6/10/1998
Caswell Cliff		Suffolk	E. Hampton	B	1	1991
Quogue Wetland	Quogue Wildlife Refuge	Suffolk	Southampton	CD	6	10/19/1995
<b>Coastal salt pond</b>	<b>State rarity: S1S2      Global rarity: G4</b>					
Oyster Pond	Montauk Point State Park	Suffolk	E. Hampton	A	136.3	9/4/1997
Cedar Cove Pond, Birthday Pond	Mashomack Preserve (TNC)	Suffolk	Shelter Island	C	0.6	10/4/1999
Plum Pond	Mashomack Preserve (TNC)	Suffolk	Shelter Island	BC	28	10/5/1999
Banding Station Pond		Suffolk	Southampton	B	12	6/26/1985
Fishers Island Island Pond		Suffolk	Southold	B	50	7/11/1985
Orient Beach	Orient Beach State Park	Suffolk	Southold	BC	2.6	10/7/1999
Robins Island		Suffolk	Southold	BC	12	9/27/1985



Location	Managed Area Name	County	Town	Quality Rank	Size (acres)	Last Survey
<b>Dwarf pine plains</b>	<b>State rarity: S1S2      Global rarity: G4</b>					
Dwarf Pine Barrens	Long Island Pine Barrens (NYS), West Hampton Management Area (NYS), David A. Sarnoff Pine Barrens Preserve (NYS), Quogue Wildlife Refuge, Dwarf Pine Plains County Nature Preserve	Suffolk	Southampton	A	2350	7/18/1995
<b>Freshwater tidal marsh</b>	<b>State rarity: S2      Global rarity: G3G4</b>					
Nissequogue River	Suffolk County Park	Suffolk	Smithtown	BC	60	7/7/1998
<b>Hempstead Plains grassland</b>	<b>State rarity: S1      Global rarity: G1Q</b>					
Mitchel Field	Meadowbrook County Park	Nassau	Hempstead	CD	37	10/4/1999
<b>High salt marsh</b>	<b>State rarity: S3S4      Global rarity: G4</b>					
Fire Island Wilderness	Fire Island National Seashore	Suffolk	Brookhaven	AB	375	9/18/1998
Northwest Creek, Northwest Harbor	Northwest Harbor County Park	Suffolk	E. Hampton	AB	178.6	6/26/1997
Hubbard Creek Marsh	Hubbard County Park	Suffolk	Southampton	AB	25	12/17/1997
Orient Beach	Orient Beach State Park	Suffolk	Southold	B	42	10/7/1999
Hempstead Bay Wetlands	Jones Beach State Park, Lido Beach State Tidal Wetlands, Bay County Park, Cedar Creek County Park, Cow Meadow County Park, Wantagh County Park, Baldwin Town Park, Merrick Road Town Park, Newbridge Road Town Park, Oceanside Town Park, Seamans Neck Town Park, Lido Beach National Wildlife Management Area	Nassau	Hempstead, Oyster Bay	BC	7,242	2001
Gilgo Beach Backbarrier Marsh	Captree State Park, Gilgo State Park	Suffolk	Babylon, Islip	BC	1113	9/27/2001
Carmans River Wetlands	Wertheim National Wildlife Refuge, Fireplace Neck State Tidal Wetlands	Suffolk	Brookhaven	BC	555	1998
Crab Meadow Marsh	Makamah County Nature Preserve, Crab Meadow Town Park	Suffolk	Huntington	BC	267	10/9/1998
Napeague Meadows	Napeague State Park, Napeague Harbor State Tidal Wetlands	Suffolk	E. Hampton	BC	226	1999
<b>Highbush blueberry bog thicket</b>	<b>State rarity: S3      Global rarity: G4</b>					
Sears Bellows Wetlands	Sears Bellows County Park, Hubbard County Park	Suffolk	Southampton	A	73	12/17/1997
Hither Woods	Hither Hills State Park	Suffolk	E. Hampton	AB	35	10/6/1999
Mashomack	Mashomack Preserve (TNC)	Suffolk	Shelter Island	AB	30	9/4/1997
Maple Swamp	Maple Swamp County Park	Suffolk	Southampton	B	3	11/18/1986
<b>Low salt marsh</b>	<b>State rarity: S3S4      Global rarity: G4</b>					
Northwest Creek, Northwest Harbor	Northwest Harbor County Park	Suffolk	E. Hampton	B	179	10/4/1996
Lloyd Neck Marsh	Caumsett State Park	Suffolk	Huntington	B	103	9/11/2001
Hubbard Creek Marsh	Hubbard County Park	Suffolk	Southampton	B	30	12/17/1997
Nissequogue River	Governor Alfred E. Smith/Sunken Meadow State Park, Nissequogue River State Park, Arthur H. Kunz County Park, Harrison Pond Town Park, Short Beach Town Park	Suffolk	Smithtown	BC	403.1	9/13/2001
West Hampton Island Tiana Beach	Shinnecock County Park	Suffolk	Southampton	BC	357.7	9/15/1998
Hempstead Bay Wetlands	Jones Beach State Park, Lido Beach State Tidal Wetlands, Bay County Park, Cedar Creek County Park, Cow Meadow County Park, Wantagh County Park, Baldwin Town Park, Merrick Road Town Park, Newbridge Road Town Park, Oceanside Town Park, Seamans Neck Town Park, Lido Beach National Wildlife Management Area	Nassau	Hempstead, Oyster Bay	BC	168	8/23/2001
Jamaica Bay	Gateway National Recreation Area, Bayswater State Park, Carnarsie City Park, Edgemere City Park, Spring Creek City Park	Queens, Kings, Nassau	New York City, Hempstead	C	1237.42	7/18/2003

Location	Managed Area Name	County	Town	Quality Rank	Size (acres)	Last Survey
<b>Marine eelgrass meadow</b>	<b>State rarity: S3      Global rarity: G5</b>					
Gardiners Bay Shelter Island, Shelter Island Sound		Suffolk	Shelter Island	AB	330	1999
<b>Marine rocky intertidal</b>	<b>State rarity: S1S2      Global rarity: G5</b>					
Fishers Island, Fishers Island South of Money Pond		Suffolk	Southold	A	10	9/19/1990
Napeague Bay	Hither Hills State Park, Hither Woods State Park	Suffolk	E. Hampton	B	54	1999
Montauk Point	Montauk Point State Park, Camp Hero State Park	Suffolk	E. Hampton	B	18	1991
Crane Neck Point		Suffolk	Brookhaven	B	6	1990
<b>Maritime beach</b>	<b>State rarity: S      Global rarity: G</b>					
Orient Beach	Orient Beach State Park	Suffolk	Southold	A	71	1999
Fire Island	Fire Island National Seashore, Robert Moses State Park, Smith Point County Park, Atlantique Town Park, Davis Town Park, Great Gun Town Beach	Suffolk	Babylon, Brookhaven, Islip	AB	999	2001
Jones Beach Island	Jones Beach State Park, Gilgo State Park, Cedar Beach Town Park, Gilgo Beach Town Park, Tobay Beach Town Park, John F Kennedy Memorial Wildlife Sanctuary	Suffolk	Oyster Bay, Hempstead, Babylon	AB	526	2001
Lloyd Neck	Caumsett State Park	Suffolk	Huntington	AB	61	2001
Mashomack	Mashomack Preserve (TNC)	Suffolk	Shelter Island, Southampton	B	45	1997
Northwest Creek Mouth	Barcelona Neck Conservation Area, North Haven State Tidal Wetlands, Northwest Harbor County Park	Suffolk	E. Hampton	B	26	1996
Montauk Point	Montauk Point State Park, Camp Hero State Park, Montauk County Park	Suffolk	E. Hampton	BC	38	1999
<b>Maritime beech forest</b>	<b>State rarity: S1      Global rarity: G2</b>					
Friars Head Forest		Suffolk	Riverhead	A	30	6/14/2001
Roanoke Point		Suffolk	Riverhead	B	40	8/21/1995
Wildwood Forest	Wildwood State Park	Suffolk	Riverhead	CD	0.9	9/28/2001
<b>Maritime bluff</b>	<b>State rarity: S2S3      Global rarity: G4</b>					
Shadmoor State Park	Shadmoor State Park	Suffolk	E. Hampton	BC	20.2	9/26/2003
<b>Maritime dunes</b>	<b>State rarity: S3      Global rarity: G4</b>					
Walking Dunes	Hither Hills State Park	Suffolk	E. Hampton	AB	190	10/7/1999
Atlantic Double Dunes	Atlantic Double Dunes Preserve (TNC), Amagansett National Wildlife Refuge, Atlantic Avenue Town Park, Bluff Road Dunesland Town Park	Suffolk	E. Hampton	AB	125	11/3/1990
Jones Beach Island	Jones Beach State Park, Gilgo State Park, Cedar Beach Town Park, Gilgo Beach Town Park, Tobay Beach Town Park, John F Kennedy Memorial Wildlife Sanctuary	Suffolk	Oyster Bay, Babylon, Hempstead	AB	889	2001
Nissequogue River	Governor Alfred E. Smith/Sunken Meadow State Park, Short Beach Town Park	Suffolk	Smithtown	B	69.4	9/13/2001
Fire Island Democrat Point	Robert Moses State Park, Fire Island National Seashore	Suffolk	Islip, Babylon	BC	496.1	9/28/2001
Napeague Dunes	Napeague State Park, Napeague Harbor State Tidal Wetlands	Suffolk	E. Hampton	BC	145	1999
Northwest Creek Mouth	Northwest Harbor County Park, Northwest Harbor State Tidal Wetlands	Suffolk	E. Hampton	BC	14	1996
Plum Island Suffolk		Suffolk	Southold	BC	85	11/1/1989

Location	Managed Area Name	County	Town	Quality Rank	Size (acres)	Last Survey
<b>Maritime freshwater interdunal swales</b>	<b>State rarity: S2      Global rarity: G3G4</b>					
Napeague Dunes	Napeague State Park	Suffolk	E. Hampton	A	26.8	9/2/1999
Atlantic Double Dunes	Atlantic Double Dunes Preserve (TNC), Amagansett National Wildlife Refuge, Atlantic Avenue Town Park, Bluff Road Dunesland Town Park	Suffolk	E. Hampton	AB	125	11/3/1990
Walking Dunes	Hither Hills State Park	Suffolk	E. Hampton	B	25	9/24/1999
Hospital Point	Fire Island National Seashore	Suffolk	Brookhaven	B	5	8/9/2002
Promised Land	Napeague State Park	Suffolk	E. Hampton	B	5	8/4/1993
<b>Maritime grassland</b>	<b>State rarity: S1      Global rarity: G2G3</b>					
Shinnecock Hills		Suffolk	Southampton	B	80	5/12/1992
Conscience Point	Conscience Point National Wildlife Refuge	Suffolk	Southampton	B	15	9/17/1989
Prospect Hill	Montauk Point State Park, Montauk County Park	Suffolk	E. Hampton	BC	35.1	7/2/1996
Hither Woods	Hither Hills State Park	Suffolk	E. Hampton	BC	32	9/24/1999
Ram Level	Hither Woods State Park	Suffolk	E. Hampton	C	8.9	9/1/1989
Shadmoor State Park, Shadmoor Ditch Plains	Shadmoor State Park	Suffolk	E. Hampton	C	0.8	9/25/2003
Montauk Downs Grasslands	Montauk Downs State Park	Suffolk	E. Hampton	CD	3	9/24/1999
Sayville Grasslands		Suffolk	Islip	E	200	9/8/1997
<b>Maritime heathland</b>	<b>State rarity: S1      Global rarity: G3</b>					
Napeague Dunes	Napeague State Park, Napeague Harbor State Tidal Wetlands	Suffolk	E. Hampton	B	404.2	9/2/1999
E. Hampton Heathland		Suffolk	E. Hampton	B	1	5/31/1985
Montauk Mountain	Montauk Mountain Preserve (TNC)	Suffolk	E. Hampton	B	0.3	5/8/1997
<b>Maritime holly forest</b>	<b>State rarity: S1      Global rarity: G1G2</b>					
Fire Island Sunken Forest	Fire Island National Seashore	Suffolk	Brookhaven	AB	10.4	8/8/2000
<b>Maritime pitch pine dune woodland</b>	<b>State rarity: S1      Global rarity: G2G3</b>					
Napeague Woods	Napeague State Park	Suffolk	E. Hampton	A	512	1998
Walking Dunes	Hither Hills State Park	Suffolk	E. Hampton	A	147	10/7/1999
Friars Head Forest		Suffolk	Riverhead	B	41	2001
Fire Island Wilderness	Fire Island National Seashore	Suffolk	Brookhaven	B	22	9/18/1998
<b>Maritime post oak forest</b>	<b>State rarity: S2S3      Global rarity: G3G4</b>					
Mashomack	TNC Mashomack Preserve	Suffolk	Shelter Island	A	562	1997
Barcelona Neck	Barcelona Neck Conservation Area, Northwest Harbor County Park	Suffolk	E. Hampton	B	22.7	9/8/1997
Hither Woods	Hither Hills State Park, Hither Woods State Park	Suffolk	E. Hampton			
Orient Beach	Orient Beach State Park	Suffolk	Southold	C	7.5	7/10/1997
<b>Maritime red cedar forest</b>	<b>State rarity: S1      Global rarity: G3G4</b>					
Orient Beach	Orient Beach State Park	Suffolk	Southold	A	68	1999
Barcelona Neck	Barcelona Neck Conservation Area, Northwest Harbor County Park	Suffolk	E. Hampton	C	6	9/8/1997
<b>Maritime shrubland</b>	<b>State rarity: S4      Global rarity: G4</b>					
East Montauk Peninsula	Montauk Point State Park, Camp Hero State Park, Amsterdam Beach State Park	Suffolk	E. Hampton	AB	420	1997
Jones Beach Island East	Gilgo State Park, Cedar Beach Town Park	Suffolk	Babylon	B	192	9/26/2001
Jones Beach Island West	Jones Beach State Park, Tobay Beach Town Park, John F. Kennedy Memorial Wildlife Sanctuary	Nassau	Hempstead, Oyster Bay	B	246.4	8/23/2001
Jones Beach Island West	Jones Beach State Park	Nassau	Hempstead	B	116.2	8/23/2001
Shadmoor State Park	Shadmoor State Park, Rheinstein Estate Town Park	Suffolk	E. Hampton	BC	86.1	9/26/2003

Location	Managed Area Name	County	Town	Quality Rank	Size (acres)	Last Survey
<b>Oak-tulip tree forest</b>	<b>State rarity: S2S3 Global rarity: G4</b>					
Lloyd Neck	Caumsett State Park	Suffolk	Huntington	AB	714.6	9/11/2001
Grace Forest		Nassau	N. Hempstead	BC	80	8/24/1987
<b>Pine barrens shrub swamp</b>	<b>State rarity: S3 Global rarity: G4</b>					
Peconic River Headwaters Wetlands	Otis Pike Preserve (NYS), Robert Cushman Murphy County Park	Suffolk	Riverhead, Brookhaven	A	26	6/16/1998
Sears Bellows Wetlands	Sears Bellows County Park, Hubbard County Park	Suffolk	Southampton	A	21	12/17/1997
Connetquot River Watershed	Connetquot River State Park Preserve	Suffolk	Islip	B	27.3	8/20/1998
Quogue Wetland	Quogue Wildlife Refuge	Suffolk	Southampton	BC	5	10/19/1995
<b>Pitch pine-oak forest</b>	<b>State rarity: S4 Global rarity: G4G5</b>					
Manorville Hills, Toppings Path	Otis Pike Preserve (NYS), Peconic Hills County Park, Cranberry Bog County Nature Preserve	Suffolk	Riverhead, Brookhaven, Southampton	A	700.0	7/24/1994
Southampton Wet Pine Barrens		Suffolk	Southampton	AB	800.0	9/16/1996
Sandy Pond East, Calverton Woods, Third Pond Calverton	Otis Pike Preserve (NYS), Robert Cushman Murphy County Park	Suffolk	Riverhead	AB	500.0	10/5/1994
Brookhaven Woods	Brookhaven State Park, , Otis Pike Preserve (NYS), Firemens Memorial Town Park	Suffolk	Brookhaven	B	11176.3	8/9/2002
Riverhead Pine Barrens	David A. Sarnoff Pine Barrens Preserve (NYS), Long Island Pine Barrens (NYS)	Suffolk	Southampton	B	3280.0	8/15/1995
Connetquot River Watershed	Connetquot River State Park Preserve, Bayard Cutting Arboretum, Bohemia County Park, Lakeland County Park Preserve	Suffolk	Islip	B	2616.9	9/12/2001
Rocky Point Pine Barrens	Rocky Point Natural Resources Management Area (NYS)	Suffolk	Brookhaven	B	2000	9/15/1994
E. Hampton Airport		Suffolk	E. Hampton	B	440	1/19/1991
Quogue Northwest Pine Barrens	Quogue Wildlife Refuge	Suffolk	Southampton	B	300	7/18/1995
Heckscher State Park	Heckscher State Park	Suffolk	Islip	BC	80	8/1/2001
Edgewood Oak Brush Plains	Oak Brush Plains State Preserve, Otsego Town Park	Suffolk	Babylon, Huntington, Islip	C	400	9/2/1992
Bethpage	Bethpage State Park	Nassau	Oyster Bay	C	45.8	8/1/2001
<b>Pitch pine-oak-heath woodland</b>	<b>State rarity: S2S3 Global rarity: G3G4</b>					
Dwarf Pine Barrens	David A. Sarnoff Pine Barrens Preserve (NYS)	Suffolk	Southampton	A	570	7/27/1994
Dwarf Pine Barrens	Hampton West Town Park	Suffolk	Southampton	AB	1110	7/27/1994
Owl Pond	Sears Bellows County Park	Suffolk	Southampton	AB	20	7/18/1991
Rocky Point Pine Barrens	Rocky Point Natural Resources Management Area (NYS), Long Island Pine Barrens (NYS)	Suffolk	Brookhaven	B	1350	9/16/1994
Brookhaven Woods	Brookhaven State Park	Suffolk	Brookhaven	B	741	8/8/2002
Riverhead Pine Barrens	David A. Sarnoff Pine Barrens Preserve (NYS)	Suffolk	Southampton	B	471	8/15/1995
South Setauket Pine Barrens		Suffolk	Brookhaven	B	350	4/27/1989
Connetquot River Watershed	Connetquot River State Park Preserve	Suffolk	Islip	B	288	9/12/2001
Overton Road Barrens		Suffolk	Brookhaven	B	35	4/27/1989
<b>Pitch pine-scrub oak barrens</b>	<b>State rarity: S1 Global rarity: G2</b>					
Edgewood Oak Brush Plains	Oak Brush Plains State Preserve	Suffolk	Islip, Huntington, Babylon	B	465	9/2/1992
Pinelawn Cemetery		Suffolk	Babylon	C	100	9/2/1985
Brentwood Oak Brush Plains	Bishops Tract County Preserve	Suffolk	Islip	C	38	11/29/1989

Location	Managed Area Name	County	Town	Quality Rank	Size (acres)	Last Survey
<b>Red maple-blackgum swamp</b>	<b>State rarity: S2      Global rarity: G3G4</b>					
Connetquot River Watershed	Connetquot River State Park Preserve, Bayard Cutting Arboretum	Suffolk	Islip	A	193.3	8/22/2001
Northwest Creek	Northwest Harbor County Park	Suffolk	E. Hampton	AB	51.8	8/25/1998
Lower Peconic River	Cranberry Bog County Nature Preserve	Suffolk	Southampton, Brookhaven	AB	38	9/9/1998
Carmans River Wetlands	Wertheim National Wildlife Refuge	Suffolk	Brookhaven	AB	25	8/26/1998
Belmont Lake	Belmont Lake State Park	Suffolk	Babylon	B	298	1/26/2002
Heckscher State Park	Heckscher State Park	Suffolk	Islip	B	225.5	8/1/2001
Caleb Smith Preserve	Caleb Smith State Park Preserve	Suffolk	Smithtown	B	116.2	1/25/2002
Yaphank Creek	Wertheim National Wildlife Refuge	Suffolk	Brookhaven	B	10	8/26/1998
<b>Red maple-hardwood swamp</b>	<b>State rarity: S4S5      Global rarity: G5</b>					
Connetquot River Watershed	Connetquot River State Park Preserve, Bayard Cutting Arboretum, Lakeland County Park	Suffolk	Islip	B	659.4	9/12/2001
<b>Red maple-sweetgum swamp</b>	<b>State rarity: S1S2      Global rarity: G4G5</b>					
Arshamonque Wetland		Suffolk	Southold	C	10	9/10/1998
<b>Salt panne</b>	<b>State rarity: S3      Global rarity: G3G4</b>					
Gilgo Beach Backbarrier Marsh	Gilgo State Park, Captree State Park	Suffolk	Islip, Babylon	B	297	9/27/2001
Hempstead Bay Wetlands	Jones Beach State Park, Lido Beach State Tidal Wetlands, Bay County Park, Cedar Creek County Park, Cow Meadow County Park, Wantagh County Park, Baldwin Town Park, Merrick Road Town Park, Newbridge Road Town Park, Oceanside Town Park, Seamans Neck Town Park, Lido Beach National Wildlife Management Area	Nassau	Hempstead, Oyster Bay	BC	292	2001
Fire Island Wilderness	Fire Island National Seashore	Suffolk	Brookhaven	BC	80	9/18/1998
Hubbard Creek Marsh	Hubbard County Park	Suffolk	Southampton	BC	12	7/8/1997
<b>Salt shrub</b>	<b>State rarity: S4      Global rarity: G5</b>					
Hubbard Creek Marsh	Hubbard County Park	Suffolk	Southampton	A	40	12/17/1997
Fire Island Wilderness	Fire Island National Seashore	Suffolk	Brookhaven	B	50	9/18/1998
<b>Saltwater tidal creek</b>	<b>State rarity: S3      Global rarity: G4</b>					
Bass Creek	TNC Mashomack Preserve	Suffolk	Shelter Island	AB	25	1999
Mashomack Creek	TNC Mashomack Preserve	Suffolk	Shelter Island	AB	21	1999
Miss Annies Creek	TNC Mashomack Preserve	Suffolk	Shelter Island	B	15	1999
Fan Creek	TNC Mashomack Preserve	Suffolk	Shelter Island	B	4	1999
<b>Sea level fen</b>	<b>State rarity: S1      Global rarity: G1G2</b>					
Northwest Creek, Northwest Harbor	Northwest Harbor County Park	Suffolk	E. Hampton	A	22	8/25/1998
Hubbard Creek Marsh	Hubbard County Park	Suffolk	Southampton	B	5	9/3/1998
Little Northwest Creek, Little Northwest Harbor	North Haven State Tidal Wetlands, Barcelona Conservation Area	Suffolk	E. Hampton	B	4.8	9/20/1997
Napeague Meadows	Napeague State Park	Suffolk	E. Hampton	BC	7	8/5/1998
Heckscher State Park	Heckscher State Park	Suffolk	Islip	C	26.4	8/1/2001
Walking Dunes		Suffolk	E. Hampton	C	3	8/5/1998
<b>Successional maritime forest</b>	<b>State rarity: S3S4      Global rarity: G4</b>					
Caswell Cliff	Montauk Point State Park, Camp Hero State Park, Montauk County Park	Suffolk	E. Hampton	A	394.6	7/23/1997
Mashomack	TNC Mashomack Preserve	Suffolk	Shelter Island	BC	184	1997



## Memories of Newfoundland

Rich Kelly

The LIBS 20th Anniversary field trip was a memorable one. Eighteen intrepid observers made their way to Deer Lake, Newfoundland on July 5 and returned on July 15. Our formal leader was Karl Anderson from New Jersey, who has been there many times before, and his experience really showed. Eric Lamont contributed lots of ID work and general organization, and Ted Gordon added expertise on grasses and sedges. The rest of the group consisted of Barbara Conolly, Tom Fiore, Pat Gordon, Andy Greller, Donald House, Ann Johnson, Carol Johnston, Rich Kelly, Ellen Kritzman, Mary Laura Lamont, Mary Maran, Zu Proly, Dottie and Bill Titus, and Kristine Wallstrom.

The weather was very favorable as we made our way up the west coast of the Great Northern Peninsula all the way to St. Anthony. Something considerably in excess of 300 species of plants were seen, and well over a third of them were new species for me, and I suppose, for most of the participants. We visited boreal forest in Gros Morne National Park, and multiple alvar barrens and coastal heath barrens. It was amazing to see so many plants growing out of the broken rocks on the alvar, or pavement, barrens. On the coastal barrens we saw many presumably fully grown trees that were growing prostrately because of the howling winds. This was especially true of many species of willows, all of which were only one or two inches high.

Approximately 23 species of orchids were seen on the trip, most in full flower and some with huge numbers of individual plants. The local season had been advanced this year by about three weeks and a few



Photo by Rich Kelly

White form *Campanula*, Phillip's Garden Trail, Port au Choix

species were gone by. However, the group was still happy to see some of the rarer species in fruit. No sooner had we put our bags in our motel rooms on the first afternoon then Karl was whisking us off to a preview of the excitement to come—*Corallorhiza maculata* (summer coralroot) and *C. striata* (hooded coralroot) at the same site, the latter one of only two stations in all of Newfoundland. Just a few of the other species which we saw included *Amerorchis rotundifolia* (roundleaf orchid) (past), *Calypso bulbosa* (fairy slipper) (fruit), *Cypripedium reginae* (showy lady's slipper), *Goodyera repens* (lesser rattlesnake plantain) (in bud), *Habenaria hookeri* (Hooker's orchid) (past), *H. obtusata* (bluntleaved orchid), *H. orbiculata* (roundleaved orchid), *Listera cordata* (heartleaf twayblade), and *Pseudorchis albida* ssp. *straminea* (Newfoundland orchid).

Ferns and fern allies were well represented on the trip. Some of the highlights included *Adiantum aleuticum* (Aleutian maidenhair), *Botrychium lunaria* (moonwort), *Cryptogramma stelleri* (fragile rockbrake), *Dryopteris filix-mas* (male fern), *Equisetum scirpoides* (dwarf scouringrush), and *Selaginella selaginoides* (club spikemoss).

There are many northern specialty plants that grow in the harsh, rocky conditions there, some of which are found nowhere else in the world. We were fortunate to see many of these target species including *Braya fernaldii* (Fernald's braya), *Braya longii* (Long's braya), *Crepis nana* (dwarf alpine hawksbeard), and *Potentilla usticapensis* (Burnt Cape cinquefoil). This last taxon

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Photo by Barbara Conolly

LIBS members Bill and Dottie Titus.

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is found at only one place in the world, and we saw it on our ranger/naturalist-led tour at the Burnt Cape Ecological Reserve. The habitat is so harsh at Burnt Cape that we were shown areas of permafrost upheaval there. In addition, on the top of a small mountain north of St. Anthony we saw a small area of tundra-like habitat.

In addition, we saw two icebergs, over 60 species of birds, various butterflies and dragonflies, several snowshoe hares, a mother and calf humpback whale,

and numerous moose. Many in the group took a sight-seeing boat ride on the landlocked "fjord" Western Brook Pond, which has numerous string waterfalls and sides that rise vertically as much as 700 meters. We visited the historical Norse settlement at L'Anse aux Meadows, and lots of local jams were purchased by the tour participants.

It was a jovial group, and Karl and Andy treated us to the singing of sea chanteys one night. The food was much better than I had anticipated, but if you ever have the opportunity to eat a Cod Tongue, don't do it.

## Invasive species report

Marilyn Jordan

***Dioscorea polystachya* syn. *D. oppositifolia* (Chinese yam/cinnamon vine):** reported in East Hampton by Pauline Rosen; first known occurrence on Long Island. Identification confirmed by Steve Clements based on Rosen's photographs. Herbaceous perennial with vertical, rootlike tubers; vines twine counter-clockwise (left to right); leaves halberd-shaped, opposite, alternate, or in threes, often with small axillary tuber. The native *D. villosa* twines clockwise; leaves cordate-ovate and mostly alternate.

***Euphorbia lathyris* (caper spurge/mole plant):** Found at Connetquot State Park, first known occurrence on Long Island. Several hundred plants were pulled out. Annual/biennial 1-2 m tall, cauline leaves opposite, leaves subtending umbel lance/deltoid-ovate in whorls of four. Fruits 1 cm in clusters of three. Milky sap irritates skin. Mediterranean.

***Myriophyllum spicatum* (Eurasian water milfoil):** An aquatic still known only from Twin Lakes, Wantagh.

***Glossostigma diandrum* (mud mat):** Known only in New Jersey and Pennsylvania; USDA APHIS is trying to determine extent of introduction. Tiny aquatic plant <2 cm tall, bright green opposite leaves, sessile or stalked and slightly expanded at the tip, often forms mats in shallow water. Flowers solitary in leaf axils, 1-3 mm wide, color pink, mauve, blue, to white; plant flowers when water recedes and plants are exposed. Look in shallow margins of water bodies; most plants rooted but some may float. Native to Australia, New Zealand, India, South Africa.

***Salix cinerea* (European gray willow):** No reports for Long Island, but likely here.

***Impatiens glandulifera* (Himalayan balsam; Ornamental jewelweed):** No reports for Long Island.

### Report only new invasions in conservation sites:

***Rubus phoenicolasius* (wineberry):** I am seeing this plant in abundance almost everywhere, including deep in the forest at TNC's Mashomack Preserve. If there are any conservation sites that haven't already been overrun, I strongly urge immediate removal of this plant.

### Weed updates

***Trapa natans* (water chestnut):** Only known occurrence on Long Island in Mill Pond, Wantagh. Pond is being dredged and will be surveyed for possible recurrence.

***Aralia elata* (Japanese angelica):** widespread; found for the first time in TNC's Mashomack Preserve on Shelter Island.

***Ludwigia peploides* (water primrose):** This floating aquatic plant was first found in 2003 in Peconic Lake (Forge Pond), the impounded section of the Peconic River in Calverton. It has washed downstream to Riverhead. The only other known location in the New York metro area is Prospect Park in Brooklyn. By fall 2005 it covered several acres. Representatives of the Peconic Estuary Program, New York State Department of Environmental Conservation, The Nature Conservancy, Fresh Water Anglers of Long Island, and citizens groups have been pulling water primrose out of Peconic Lake in huge quantities.

Report all occurrences to Kathy Schwager (kschwager@tnc.org) and/or Marilyn Jordan (mjordan@tnc.org), The Nature Conservancy



## Field Trips

### SATURDAY, OCTOBER 14, 2006, 9 A.M.

*Hither Hills and Napeague, Suffolk County, New York*

Trip leaders: Steve Young (Program Botanist, New York Natural Heritage Program) and Gerry Moore (Director of Science, Brooklyn Botanic Garden)

We will search for Sea-Blites (*Suaeda*) in this beautiful South Fork dune-and-shore area. There are four species of these interesting salt-adapted plants on Long Island and two of them are state-rare (*Suaeda rolandii* and *Suaeda linearis*). While the excursion is primarily a hunt for these rarities, we will not ignore other plants along the way. The hike is an easy one, but it will be on wet ground. Bring a lunch, water, and mosquito repellent. There are no facilities close by but we will stop at the park facilities between sites. This is a joint trip of LIBS and the New York Flora Association.

**Directions:** Meet at Hither Hills at the north parking lot on Napeague Harbor Road, where we will go in to the dunes. Napeague Harbor Road is a left turn off Montauk Highway not long before you come to the sign for the state park boundary.

### Join LIBS today!

Annual Membership is \$20 payable to  
**Long Island Botanical Society**

#### Mail your dues to:

Lois Lindberg  
Membership Chairperson

#### Letters to the Editor, Articles, and News

Margaret Conover  
Long Island Botanical Society  
PO Box 507  
Aquebogue, NY 11931



## Upcoming Programs

### October 10, 2006\*

Tuesday, 7:30 p.m.

STEVEN CLEMANTS: "WILDFLOWER STORIES." A discussion of the ecology and biology of wildflowers. Steve is VP of Science at the Brooklyn Botanic Garden and first author of the recently published (2006) *Wildflowers in the Field and Forest*.

Location: Bill Paterson Nature Center  
Muttontown Preserve, East Norwich

### November 14, 2006\*

Tuesday, 7:30 p.m.

LOIS AND AL LINDBERG: "FLOWERS, BIRDS, AND BUGS: THE SLIDES OF ADRIAN DIGNAN." A collection of photos from the local naturalist and photographer. Lois is curator at the Garvies Point Museum, and Al is wildlife biologist in charge of Muttontown Preserve and the North Shore Greenspace Preserves, Nassau County Parks Department.

#### EXECUTIVE BOARD MEETING

6 p.m.

All members are invited to attend the Executive Board Meeting to be held before the program feasting begins.

Location: Bill Paterson Nature Center,  
Muttontown Preserve, East Norwich

### December 12, 2006\*

Tuesday, 7:30 p.m.

RICH KELLY: "NEWFOUNDLAND BOTANY AND STUFF." A chance to relive the excitement of the big LIBS anniversary trip to Newfoundland or feel bad because you didn't go. All other trip participants are encouraged to provide photos. Rich is LIBS programs chair and a member of the Local Flora Committee.

Location: Bill Paterson Nature Center,  
Muttontown Preserve, East Norwich

### January 9, 2007\*

Tuesday, 7:30 p.m.

MEMBERS NIGHT: Members are welcome to bring slides, stories, specimens, and tales of peculiar sightings of favorite plants. A great opportunity to show what you have found while exploring on Long Island or elsewhere (no Newfoundland). Please call Rich Kelly (516-354-6506) in advance to advise as to the approximate number of slides/images that you would like to show and preferred medium. Thanks.

Location: Bill Paterson Nature Center,  
Muttontown Preserve, East Norwich

\* Refreshments and informal talk begin at 7:30 p.m.  
Formal meeting starts at 8:00 p.m.